REMARKS

Claims 1 - 11, 13 - 17, 19, and 25 - 32 are pending. Claims 1, 4, 5, 7, 8, 11, 13, 15 - 17, 25, 27, 29, and 31 have been amended. Claims 12, 18, and 20 have been cancelled. No new matter has been introduced. Reexamination and reconsideration of the application are respectfully requested.

In the November 28, 2004 Office Action, the Examiner rejected claims 1, 2, 4, 5, 7, 8, 18 - 20 and 25 - 30 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,665,495 to Miles et al. ("the Miles reference"). The Examiner rejected claims 3, 6, and 9 - 12 under 35 U.S.C. § 103(a) as being anticipated by the Miles reference in view of U.S. Patent No. 6,021,263 to Kujoory et al. ("the Kujoory reference"). The Examiner rejected claims 13, 14, 15 - 17, 31, and 32 under 35 U.S.C. § 103(a) as being unpatentable over the Miles reference in view of U.S. Patent No. 6,816,455 to Goldberg et al. ("the Goldberg reference"). These rejections are respectfully traversed in so far as they are applicable to the pending claims.

Claim 1, as amended, distinguishes over the cited references. Claim 1 recites:

> A method, comprising:
> receiving a plurality of packets and **inserting the plurality of packets in a packet queue**;
> **classifying the packets according to a classification criterion after the plurality of packets have been inserted in the packet queue**;
> sending a packet bundle and a corresponding packet bundle descriptor to a host wherein the packet bundle is generated using packets that are uniformly classified with respect to the classification criterion; and
> receiving the packet bundle and the corresponding packet bundle descriptor; and
> processing the packet bundle according to the corresponding packet bundle descriptor.

The Miles reference does not disclose, teach, or suggest the method of claim 1, as amended. The Examiner states that the Miles reference classifies packets

according to a classification criterion and includes sending a packet bundle to a host wherein the packet bundle is generated using packets that are uniformly classified with respect to the classification criterion. *(Office Action, page 2)*. Specifically, the Miles reference discloses receiving a packet at an ingress legacy port 28, which can deliver the packet to an ingress edge unit 60. The packet is then delivered to a packet classification module 250 which is within a port card. The packet classification module 250 classifies the packet base on the destination egress edge unit, the destination port within the destination egress edge unit, and Quality of Service (QoS) parameters and puts this information into classification information. Based on the packet classification, a packet classification controller can route the incoming packets into appropriate destination queues within a packet classification queue. The data packet is forwarded to an ingress super packet factory to be aggregated into a super packet. *(Miles, col. 19, line 53 - col. 29, line 27; col. 27, line 15 - col. 28, line 50.)*

This is not the same as a method including receiving a plurality of packets and **inserting the plurality of packets in a packet queue and classifying the packets according to a classification criterion after the plurality of packets have been inserted in the packet queue.** The Miles reference discloses that the packet is first classified and then placed into an appropriate destination queue with a packet classification queue, which is in direct contrast to **classifying the packets according to a classification criterion after the plurality of packets have been inserted in the packet queue, as recited in claim 1, as amended**. This is important because a device implementing the invention of claim 1 of the present application does not need multiple queues, as would be needed to implement the Miles system. In addition,

processing time is improved by the present invention because classification is done after the packet is received and placed into a queue. Accordingly, applicants respectfully submit that claim 1, as amended, distinguishes over the Miles reference.

The Kujoory reference does not make up for the deficiencies of the Miles reference. The Examiner states that the Kujoory reference discloses packets which are classified based on their session and transferred according to a priority. *(Office Action, page 5)*. Assuming, *arguendo*, that the Kujoory reference shows all that the Examiner states that it does, the Kujoory reference does not disclose a method including receiving a plurality of packets and **inserting the plurality of packets in a packet queue and classifying the packets according to a classification criterion after the plurality of packets have been inserted in the packet queue.** According, applicants respectfully submit that claim 1, as amended, distinguishes over the Miles / Kujoory reference combination.

Independent claims 19 and 25 recite limitations similar to independent claim 1, as amended. Accordingly, applicants respectfully submit that independent claims 19 and 25 distinguish over the Miles / Kujoory reference combination for reasons similar to those discussed above in regard to claim 1, as amended.

Claims 2 - 3 and 26 depend directly on claims 1 and 25, respectively. Accordingly, applicants respectfully submit that claims 2 - 3 and 26 distinguish over the Miles / Kujoory reference combination for the same reasons as those discussed above in regard to claim 1, as amended.

Claim 4 distinguishes over the cited references. Claim 4 recites:

>A method for an input and output controller, comprising:
>receiving a plurality of packets in a packet queue;

classifying the packets in the packet queue according to a classification criterion, **the classifying including looking ahead in the packet queue to classify the packets in the packet queue**; and

sending a packet bundle to a host wherein the packet bundle includes a number of packets that are uniformly classified with respect to the classification criterion.

The Miles reference does not disclose, teach, or suggest the method for an input and output controller including receiving a plurality of packets in a packet queue and classifying the packets in the packet queue according to a classification criterion, **the classifying including looking ahead in the packet queue to classify the packets in the packet queue**. As discussed above in regard to claim 1, the Miles reference does not disclose placing packets into a packet queue before classification. Further, the Miles reference classifies packets one at a time and then places the packets into a packet classification queue. The Miles reference does not **look ahead in the packet queue to classify the packets** in the packet queue because the packets of the Miles reference are already classified before they are placed in a packet queue. Accordingly, applicants respectfully submit that claim 4, as amended, distinguishes over the Miles reference.

The Kujoory reference does not make up for the deficiencies of the Miles reference. The Examiner states that the Kujoory reference discloses packets are classified based on their session and transferred according to a priority. *(Office Action, page 5)*. Assuming, *arguendo*, that the Kujoory reference shows all that the Examiner states that it does, the Kujoory reference does not disclose a method including classifying the packets in the packet queue according to a classification criterion, **the classifying including looking ahead in the packet queue to classify the packets in the packet queue**. According, applicants respectfully submit that claim 4, as amended,

distinguishes over the Miles / Kujoory reference combination.

Independent claim 27, as amended, recites limitations similar to claim 4, as amended. Accordingly, applicants respectfully submit that claim 27 distinguishes over the Miles / Kujoory reference combination for reasons similar to those discussed above in regard to claim 4, as amended.

Claims 5 - 6 and 28 depend on independent claims 4 and 27, respectively. Accordingly, applicants respectfully submit that claims 5 - 6 and 28 distinguish over the Miles / Kujoory reference combination for the same reasons as those discussed above in regard to claim 4, as amended.

Independent claim 7, as amended, distinguishes over the cited references. Independent claim 7 recites:

> A method for a classification based packet transferring mechanism, comprising:
> receiving a plurality of packets and inserting the packets in a packet queue;
> classifying the packets according to a classification criterion;
> **rearranging an order of the packets in the packet queue based on the classifying of the packets**; and
> sending a packet bundle to a host wherein the packet bundle includes a number of packets that are uniformly classified with respect to the classification criterion.

The Miles reference does not disclose, teach, or suggest the method of claim 7, as amended. The Miles reference discloses only the packets being placed into appropriate destination queues in a packet classification after they have been classified. This is not the same as a method including inserting the packets into a packet queue, classifying the packets, and then **rearranging an order in the packet queue based on the classifying of packets**, as recited in claim 7. It is not the same because in the Miles reference, there is no rearrangement of an order in a packet queue where the

packets were originally stored. Instead, the Miles reference discloses placing he

packets in separate queues based on the packets' classification. Accordingly,

applicants respectfully submit that claim 7, as amended, distinguishes over the Miles

reference.

The Kujoory reference does not make up for the deficiencies of the Miles

reference. Assuming, *arguendo*, that the Examiner's statements regarding the Kujoory

reference on page 5 of the Office Action are correct, the Kujoory reference still does not

disclose inserting the packets into a packet queue, classifying the packets, and then

rearranging an order in the packet queue based on the classifying of packets.

Accordingly, applicants respectfully submit that claim 7, as amended, distinguishes over

the Miles / Kujoory reference combination.

Independent claims 29 recites limitations similar to claim 7, as amended.

Accordingly, independent claim 29 distinguishes over the Miles / Kujoory reference

combination for reasons similar to those discussed above in regard to claim 7, as

amended.

Claims 8 - 10 and 30 depend directly on claims 7 and 29, respectively.

Accordingly, applicants respectfully submit that claims 8 - 10 and 30 distinguish over

the Miles / Kujoory reference combination for reasons similar to those discussed above

in regard to claim 7, as amended.

Independent claim 11 distinguishes over the cited references. Independent

claim 11 recites:

> A method for a classification based packet transferring mechanism, comprising:
> classifying packets according to a classification criterion; and
> sending a packet bundle to a host wherein the packet bundle is generated using
> packets that are uniformly classified with respect to the classification criterion,
> said sending including determining the packet bundle for transfer according to a

pre-determined criterion, generating the packet bundle and a corresponding packet bundle descriptor, and transferring the packet bundle and its corresponding packet bundle descriptor to the host, the classification criterion including a session number, the pre-determined criterion including a priority associated with a packet, the packet bundle descriptor providing information about the packet bundle and at least one packet descriptor, each of which provides information about a packet in the packet bundle, and **said packet bundle descriptor including a number of packets in the packet bundle, a session number identifying the session information of the packets in the packet bundle, and a priority value specifying the priority of the packet bundle.**

The Miles reference does not disclose, teach, or suggest the method of claim 11, as amended. The Examiner states that the Miles reference does not show a session number and a priority associated with a packet. *(Office Action, page 5).* The applicants agree with the Examiner and respectfully submit that claim 11 distinguishes over the Miles reference.

The Kujoory reference does not make up for the deficiencies of the Miles reference. The Examiner states that the Kujoory reference shows that packets are classified based on their session and transferred according to a priority (i.e., flow specification). *(Office Action, page 5).* Specifically, the Kujoory reference discloses that packets are classified based on their session and also on a filter specification and that service by the IP protocol is based on a flow specification. The flow specification specifies a desired quality of server and is use to set packet schedule parameters.

This is not the same as having a packet bundle and a packet bundle descriptor providing information about the packet bundle, **said packet bundle descriptor including a number of packets in the packet bundle, a session number identifying the session information of the packets in the packet bundle, and a priority value specifying the priority of the packet bundle.** The Kujoory reference discloses classifying packets according to session and filter spec and then placing them in a flow specification queue. *(Kujoory, Figs. 2 and 3).* There is no disclosure that **a session**

number and a priority value are included in a packet bundle. There is only

disclosure that the Kujoory packets are placed in an appropriate queue. Accordingly,

applicants respectfully submit that claim 11, as amended, distinguishes over the Miles /

Kujoory reference.

Claim 15 distinguishes over the cited references. Claim 15, as amended, recites:

> A system, comprising:
> an input and output controller with a classification based packet
> transferring mechanism for receiving packets and transferring a packet
> bundle with its corresponding packet bundle descriptor; and
> a host for receiving the packet bundle and a corresponding packet
> bundle descriptor and **for updating a session based on the packet
> bundle descriptor using contents of the packet bundle.**

The Miles reference does not disclose, teach, or suggest the system of claim 15,

as amended. The Examiner states that the Miles reference does not show updating a

packet session using a packet bundle according to the packet bundle descriptor.

(Office Action, page 6). The applicants agree and respectfully submit that claim 15

distinguishes over the Miles reference.

The Goldberg reference does not make up for the deficiencies of the Miles

references. The Examiner states that the Goldberg reference discloses writing an

update session and identifying a session number prior to said updating. *(Office Action,*

page 6). Specifically, the Goldberg reference shows a dynamic packet filter utilizing

session tracking. The Goldberg reference discloses that a session database is updated

if a packet is allowed through the Goldberg filter. *(Goldberg, col. 8, lines 32 - 35).* As a

packet is received, a socket is checked against a session database for a matching

socket. If no socket is found, a static rule check is made against the packet and the

packet is denied if it violates that static rule check. If a session having a socket

matching that of the received packet is found, the session data is read from the session database and the session data is processed (which means the rules of the socket protocol are checked against the packet to see if the packet is behaving as a packet would utilizing that protocol). *(Goldberg, col. 7, line 61 - col. 8, line 35)*. The session database is updated in the packet is behaving according to protocol.

This is not the same as system including a host for receiving the packet bundle and its corresponding packet bundle descriptor and **for updating a session based on the packet bundle descriptor using contents of the packet bundle.** The Goldberg reference discloses only that after a packet is filtered, a session database is updated. The Goldberg reference does not show that the Goldberg system is **using the packet bundle descriptor to update a session** (not a session tracking database) **using contents of the packet bundle,** as recited in claim 15. Accordingly, applicant respectfully submits that claim 15, as amended, distinguishes over the Miles / Goldberg reference combination.

Independent claims 13, 16, and 31 recite limitations similar to claim 15, as amended. Accordingly, applicants respectfully submit that claims 13, 16, and 31 distinguish over the Miles / Goldberg reference combination for reasons similar to those discussed above in regard to claim 15, as amended.

Claims 14, 17, and 32 depend on independent claims 13, 16, and 31. Accordingly, applicants respectfully submit that claims 14, 17, and 32 distinguish over the Miles / Goldberg reference combination for the same reasons as those discussed above in regard to claim 15, as amended.
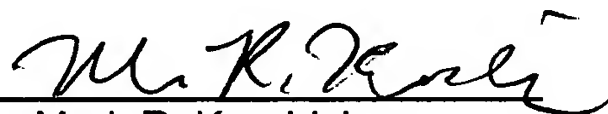
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Applicants believe that the claims are in condition for allowance, and a favorable

action is respectfully requested. If for any reason the Examiner finds the application

other than in condition for allowance, the Examiner is requested to call either of the

undersigned attorneys at the Los Angeles telephone number (213) 488-7100 to discuss

the steps necessary for placing the application in condition for allowance should the

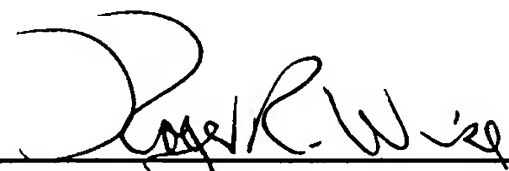Examiner believe that such a telephone conference would advance prosecution of the

application.

Respectfully submitted,

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